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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,369	10/15/2003	Craig C. Klocke	P06629US0	6717

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EXAMINER

WEINSTEIN, LEONARD J

ART UNIT	PAPER NUMBER
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3746

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/686,369	Applicant(s) KLOCKE, CRAIG C.	
	Examiner Leonard J. Weinstein	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/15/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-6;7-18;19-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, where claim 1 is drawn to a control system for a hydrostatic unit having a swash plate comprising: an electric means for producing a dithered output signal; a pressure control adapted to receive the dithered output signal and position the swash plate. Subsequent claims 2-6 further limit the elements in claim 1 that comprise an apparatus classified in class 471, subclass 222.10.
 - II. Claims 7-18, where claim 7 is drawn to a method for controlling the angle of a swash plate of a hydrostatic unit comprising steps of: generating an electric signal based on a set point signal; receiving the electric signal in a microprocessor; interpolating the information from the electric signal using an algorithm contained in the microprocessor; sending an output signal from the microprocessor to a pressure control; dithering the output signal; and generating a dithered pressure from the pressure control that displaces the swash plate. Subsequent claims 8 and 9 further limit the method within claim 7 by defining the set point signal as a measurable parameter, that which being the angle of the swash plate. Claim 7 is limited further by claims 10-16, which consist of a series of Markush-type claims reciting alternatives for accomplishing the steps related to

algorithm computation and pressure control. The method in claim 7, further limited in claims 8-16, is considered a mechanical process classified in class 471, subclass 53.

- III. Claims 19-20, drawn to a control system for a hydrostatic pump having a swash plate and being comprised of a feedback sensor, a microprocessor and a pressure control. Claim 20 further limits the control system claimed in claim 19, which is classified in class 471, subclass 222.10.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another and materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the invention as claimed in claim 1 can be used to practice another materially different process as claimed in claim 7.

The invention as claimed in claim 1 is stated to be a "control system" with an "electronic means for producing a dithered output signal" and "a pressure control adapted to receive the dithered output signal." It is commonly known within the art that a dithered signal can be generated using a multitude of electronic means. Further a dithered signal can be generated and utilized in both analog (Nielson US Patent No. 4,546,403) and digital (Anderson US Patent No. 5,432,693) control systems, as cited by

the applicant. The invention as claimed in claim 1 is considered to be an apparatus that would not be limited to "interpolating the information from the electronic signal using an algorithm," as recited in claim 7. In addition it would not be obvious that performing this step would be an inherent capability for the invention as it is claimed in claim 1. Therefore the apparatus defined in claim 1, and comprised of elements that produce and receive a dithered signal, would not be limited to the method in claim 7 and could perform a materially different process.

Because these inventions are independent or distinct for the reasons given and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

3. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it has been shown that the invention as claimed in claim 1 does not require all the elements that comprise the invention as claimed in claim 19. The claimed invention in claim 19 is for a control system for a hydrostatic pump having a swash plate and comprised of a feedback sensor, a microprocessor, and a pressure control. This apparatus is a specific

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subcombination of the apparatus claimed in claim 1 but is comprised of a feedback sensor adapted to sense the angle of the swash plate, which is not stated as a material component of the apparatus in claim 1. The subcombination has separate utility such that the feedback sensor could be adapted to sense a multitude of operating characteristics such as the position of the pressure control.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

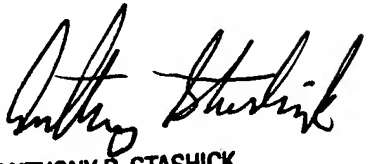
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LJW



ANTHONY D. STASHICK
PRIMARY EXAMINER